

Work and Resistance in the Jharia Coalfield
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Introduction

The presumption underlying this essay derives from the plasticity of the conference rubric, *The World of Indian Industrial Labour*. Its contents lie within the purview of the sections dealing with Work Organization and Culture; and Solidarity and Resistance, but some of the material lies outside that rubric. For example, if industry is to be understood as "modern powered manufacturing industry", then coal mining ought to be left out. Again, whereas the notion of a "world of labour" seems to refer to the social milieu and culture of work, I intend to explore another meaning, namely, the existential universe created by the categorial structure of capital; and to examine the mode by which the logic of capital adapted to the available forms of social labour and the control thereof, both in colonial and post-colonial times. It goes without saying that each of these explorations will be coloured by an ambivalence which springs from the difficulty of using cut and dried notions to describe and comprehend Indian social reality. My subject matter concerns the labours of armies of part-time peasants who extracted the primary energy resource of the British Empire in India. They expended their lives in the most backward of working environments, yet without them neither the Indian Railways nor large-scale machine industry - the truly modernising elements which appeared under colonialism, would have made an appearance. I should also say that having used the term 'capital' so readily, I am aware of the intense controversy that surrounds its use in referring to any colonial context.

There are two fundamental interpretations I wish to put on the phrase "world of industrial labour". The first stems from the assumption that this 'world' is one whose

¹ This essay contains some material from a seminar paper delivered at the Davis Center for Historical Studies at Princeton University in January 1995, the International Institute of Asian Studies, Leiden in August 1996; certain personal publications referred to below, recently conducted research in the National Archives of India (N.A.I.), and other relevant materials. In the following pages the *Report of the Labour Enquiry Commission* (1896) will be referred to as *R.L.E.C.*; the *Treharne-Rees Report* (1919), as *Rees*; the *Report of the Coal Mining Committee* (1937, L.B. Burrows), as *C.M.C.*; the *Report of the Indian Coalfield's Committee* (1946, Mahindra), as *ICC*; the *Report on an Enquiry into Conditions of Labour in the Coal Mining Industry in India* (1946, S.R. Deshpande), as *Deshpande*; and the *Transactions of the Mining and Geological Institute of India*, as *T.M.G.I.*. G.O.I. denotes Government of India; *C.E.H.I.*, *The Cambridge Economic History of India* (1983); *R.C.L.*, the Royal Commission on Labour (1931); *C.O.I.*, the Census of India, *G.S.I.*, the Geological Survey of India and *B.L.E.C.*, the *Report of the Bihar Labour Enquiry Committee* (1940).

basic co-ordinates are created by capital; the second from the observation that within this alienated universe, the working class is nonetheless capable, and indeed impelled towards creating spheres of perception and action which are its own, whether these function as antagonistic alternatives or modes of accommodation. I shall make certain introductory comments about each of these interpretations before proceeding with the argument. To begin with, I do not accept the proposition that "capitalism is less active than acted upon by existing forms of social stratification".² To say that capital as a social relation adapts itself to "existing forms" of society is quite another matter, for it is the nature of capital to augment itself by maximising the extraction of surplus-value in any given historical context. But no matter what these "existing forms" may be, the teleological orientation of the regime of capital is always towards the transformation of those forms in a direction suitable for a fuller domination of labour, and towards creating conditions wherein the circulation of money and the activity of profit-making are rendered more efficient. Of course, these activities are complicated by institutional contexts - in our case these being represented by the colonial state, its regulatory apparatus and its geo-strategic needs. An examination of these contexts helps concretise the types of production relations generated by capital. However, at the end of the analysis we are still left with the stark reality of a "world" of work and productive activity within which "labour" remains a "factor of production", or a "resource", in a word, a world created in the image of capital.

Secondly, despite being forcibly relocated and placed in an alienated universe, the element of labour retains a degree of recalcitrance, even though this does not result in incessant confrontation. Such recalcitrance may be manifested as cultural disaggregation and the assertion of traditional identities, a refusal to be incorporated into the labour force by departing from the scene of operations or by negotiating the terms and forms of subordination through various types of struggles. The volatility of the proletariat in real life exists in juxtaposition to the idyllic stability of the factors of production and serves to remind us (just as do the periodic crises of the capital markets), of the inherent instability of the capitalist mode of production. In the

² Frank Parkin, *Max Weber*, 1982, quoted in P.J. Cain and A.G. Hopkins, *British Imperialism: Innovation and Expansion 1688-1914*, Longman, London, 1993. p. 28

following pages, after a historical introduction to the development of coal mining in colonial India, I shall attempt to flesh out the dual meaning I have ascribed above to the term "world of labour"

A brief history of coal mining in India

Indian coal extraction was embarked upon not by industrial capital, but by a structure which included the Anglo-Indian form of finance-capital known as the Managing Agencies and a variety of Indian partners. It remained enmeshed in a nexus ranging from the City of London to the G.O.I., Calcutta's business houses and the Railway Board. The social representatives of categories such as constant capital, landed rent and variable capital appeared as Managing Agents, *zamindars*, company lessees and piece-rated low-caste and tribal miners. The financiers' remuneration took the form of a levy on surplus-value, the *zamindars* operated as rentiers. The activities of all these agents constituted the physical and institutional universe in which proletarianized poor peasants extracted coal.

Steam engines appeared in mints, baling presses, tugs and riverine trade early in the 19th century, even as the Indian economy was being transformed into an exporter of indigo, tea and opium and an importer of textiles. In the 1830's steam vessels were operating on the Ganga and in the 1840's they were plying coastal routes. Steam-driven gunboats played a crucial role in Burma and China, and coal rapidly acquired significance for purposes of commerce and conquest.³ The exploitation of the 'Bengal coalfield' began in Raniganj in 1814. Rail construction was promoted by textile traders and shipping companies and the extension of lines to the coalfields led to a surge in output.⁴ In the aftermath of the 1857 revolt railway investment accelerated. Partly for famine management but mainly for military reasons, the G.O.I. authorised the laying of

³ See D.R. Headrick, *The Tools of Empire: Technology and European Imperialism in the Nineteenth Century*, OUP, New York, 1981, chapter 1. Also see R.S. Rungta, *The Rise of Business Corporations in India 1851-1900*, Cambridge, 1970, ch. 1; and M.D. Morris in *CEHI* pp 563-564. In 1840, there were 5 private and 9 government-owned steam boats on the Ganga: Blair Kling, *Partner in Empire: Dwarkanath Tagore and the Age of Enterprise in Eastern India*, Berkeley, 1976, p. 99.

⁴ In 'The Pattern of Railway Development in India', (*The Far Eastern Quarterly*, vol 14 (2), 1955, pp. 201, 203), Daniel Thorner stressed that the great railway networks were built in order to intermesh the economies of Britain and India. See also his comments on the East Indian Railway in *Investment in Empire: British Railway and Steam Shipping Enterprise in India 1825-1849*, Philadelphia, 1950, p. 23.

tracks to strategic points.⁵ The Jharia field had been surveyed in 1866 and 1887 but developed only after the East Indian Railway's (E.I.R.), survey of 1890 and the track extensions of 1894-95. In six years, Jharia's output rose from 1500 to 2 million tons, after which it became the most productive field in the country.⁶

The firms which developed Jharia were an outgrowth of the Agency Houses, which had invested colonial Englishmen's fortunes in the early 1800's.⁷ These collapsed in the 1830's, and their successors the Managing Agencies began controlling joint-stock associations by proxy, a practice initiated by Dwarkanath Tagore.⁸ Decision-making shifted to London, and Indian trade came under the control of the Agencies and cartels such as the Peninsular & Orient's Calcutta Conference and the Indian Jute Mills Association. "As the managing agents extended their interests... their special function came to consist in supervision... Much closer to finance and markets, the agents were able to supplement the work of men in actual charge of operation...".⁹ Focussing on immediate rather than future gain, they transferred profits from one company to another, and manipulated the price of fuel supplied to their non-mining concerns.¹⁰ From 1890 to 1920 the number of coal companies in Bengal and Bihar increased from 6 to 227.¹¹ In 1911 seven Managing Agents controlled 55% of the jute, 61% of the tea and

⁵ Thorner, 'Railway Development' - *ibid*, pp. 204-209; and J.M. Hurd, in *CEHI*, p. 742. For an argument concerning the primacy of strategic motives, see W.J. Macpherson's 'Investment in Indian Railways', *Economic History Review*, London, vol. 8 (2), 1955.

⁶ CMC, pp. 9-10. Bihar was part of the province of Bengal until 1912.

⁷ See Rungta, *Business Corporations*, ch. 1; S. K. Basu, *The Managing Agency System in Prospect and Retrospect*, Calcutta, 1958, ch 1; and Rajat Ray (ed), *Entrepreneurship and Industry in India*, Delhi, 1994; pp. 19-24, 30.

⁸ Blair Kling, 'The Origins of the Managing Agency System', in Ray, *Entrepreneurship*. See also Kling, *Partner in Empire*, chapters 5 & 6. Tagore's first mine was abandoned to an underground fire caused by de-pillaring and spontaneous combustion: p. 96.

⁹ D.H. Buchanan, *The Development of Capitalistic Enterprise in India*, Macmillan, New York, 1934, pp 167-168.

¹⁰ CMC, p. 28

¹¹ Henner Papendieck, 'British Managing Agencies in the Indian Coalfield', in D. Rothermund and D.C. Wadhwa, *Zamindars, Mines, and Peasants*, New Delhi, 1978, p. 184. From 1890 till 1918 coal production increased tenfold, capital invested in coal twelvefold, and the size of the workforce fivefold (p. 175). Also see A.K. Bagchi, *Private Investment in India*, Delhi, 1972, pp. 163-164, 176-179; and Ray, *Entrepreneurship*, pp. 30-36, 47.

46% of the coal companies.¹² The Agents' remuneration consisted of commissions on proceeds, raisings or dividends. The calculation of net profits before making deductions for depreciation and reserves rendered this form of management detrimental to the collieries.¹³ Commissions paid were apart from salaries and share dividends, and agents could make a 'poundage' even when the firm was making a loss. In certain areas more machinery was installed than was necessary, owing to "the fact that although the coal was near the surface, the advisors had an interest in the sale of mining equipment".¹⁴

Coal became the Empire's major source of energy. Annual all-India coal production increased from 4.7 million tons during 1896-1900 to 19.3 million in 1916-20, and 23.8 million tons in 1930.¹⁵ In 1927 metallurgy consumed 24.2% of output and jute and textile mills 8.2% between them. Railways took a third, increasing their demand from under a million tons in 1893 to 7.5 million tons in 1936.¹⁶ Their low freight rates for long-haul bulk goods rendered internal trade more expensive than foreign.¹⁷ The railway companies' freight wars and zonal boundaries prevented network integration and the E.I.R. used its monopoly to charge high rates for coal deliveries to Calcutta.¹⁸ Until 1914 this tendency combined with the impact of the Suez Canal and low freight-rates on India-bound shipping (from Britain) to render British and South African coal cheaper than Indian coal in western and southern India.¹⁹ The war

¹² Bagchi, *Private Investment*, p. 176. They were Andrew Yule, Bird, Shaw Wallace, Williamson Magor, Octavius Steel, Begg Dunlop, and Duncan Bros.

¹³ Papendieck, 'British Managing Agencies', p 190-192. There were marked and arbitrary differences between prices for independent and associated buyers: pp 204-212. Also, *CMC*, p. 27.

¹⁴ Buchanan, *The Development of Capitalistic Enterprise*; pp. 171, 261.

¹⁵ A. B. Ghosh, *Coal Industry in India*, Delhi, 1978, pp. 278-280.

¹⁶ *RCL*, vol 4, part 1, p. 242; and B.R. Seth, *Labour in the Indian Coal Industry*, Bombay, 1940, p. 8. The 1946 report estimated railway consumption at 6.3 m tons in 1920, 7.0 in 1928, and 7.4 in 1935: *ICC*, p. 298.

¹⁷ Hurd, *CEHI*, pp. 752-758; and Thorner, 'Railway Development.' - p. 208.

¹⁸ The Agents claimed that coal contributed more to tonnage hauled than to profits earned. Given its freight structure, the EIR was making a concession to coal. See *CMC*, 91-92.

¹⁹ Hurd, *CEHI*, pp. 752-758. The EIR's share of track in 1897 was 9%, but it garnered 23% of total railway earnings. The popularity of foreign coal was also due to unreliable grading of Indian coal. The 'raw' nature of Indian exports generated a surplus of cargo space on return voyages from Britain, which carried less bulky manufactured goods. This was made available for British coal, and helped lower

enabled Indian coal to capture the home market.

The development of Jharia boosted Indian entrepreneurs' investments in mining. From 1900 to 1947 their share of output grew from one-fifth to one-fourth in a process marked by fluctuations. Several Indian companies were so tiny as to be known as 'wagon mines' - they comprised half the number of collieries in the inter-war period, but their share in production was less than 5%.²⁰ They mined low grade coal from shallow mines, were quickly opened and shut down, and competed ferociously. Combining in the Indian Mining Federation (I.M.F.) in 1913, they prospered in the post-war boom, mining over a third of output. In the mid-1920's their output share underwent a 10% decline. Internecine strife bred the Indian Colliery Owners' Association (I.C.O.A.) in 1934. The two bodies often asked for state-regulated prices, but such a course conflicted with the cost-cutting interest of the Railway Board.²¹ Small-scale mineowners were resentful of the affinity between the Agents and the imperial elite. Indian business practices probably consolidated erratic employment and low wage expectations to the benefit of the Railway Board.

The new regime of accumulation was a successful blend of strategic and financial interests. In 1928, British-controlled coal companies, (combined in the Indian Mining Association - I.M.A. - in 1892), accounted for 60% of output.²² In 1944 this had risen to 70.6%, with the Railways' captive collieries accounting for another 11.5%.²³ An official report in 1937 contains an observation about "the subordinate position of the coal industry relatively to the coal trade", which aptly described the effects of finance-capitalist management on the extraction process.²⁴ The mediate form of management

transport costs. See C.N. Vakil and S.K. Muranjan, *Currency and Prices in India*, Bombay, 1927, pp. 234-236.

²⁰ C.P. Simmons, 'Indigenous Enterprise in the Indian Coal Mining Industry, ca 1835-1939, in *IESHR*, vol 13(2), p. 201, 204.

²¹ In an address to the Indian Mining Federation in 1929, A.L. Ojha spoke of "a merger and combination of isolated small undertakings", and suggested an Indian version of the German Federal Economic Council, "for a better adjustment of our... rapidly changing economic life": *Searchlight*, 3/3/29; and Simmons, 'Indigenous Enterprise', pp. 200-215.

²² *RCL*, vol 4, part 1, p. 242.

²³ *ICC*, p. 116.

²⁴ *CMC*, pp. 7, 22-31.

was subject to another factor placing it at a remove from 'market forces'. This was the role of the Railway Board. The balance of interests of the Agencies and the Board involved conflicts over prices, wagons and freight rates which determined the railway's fuel bills and the profit rates of the coal companies. The corporate weight of the railway system, its importance for transporting coal and the links between the Agencies and Government resulted in these conflicts always being resolved in the interests of the Board. Even certain British 'civilians' could get irritated by such trends when they had to handle its social consequences. After the engagement of fresh raising contractors in the Railways' Bokaro colliery (which resulted in 5000 redundancies), a senior government official named the Railway Board "a selfish and inconsiderate commercial concern" for its peremptory attitude towards miners' jobs.²⁵

Jharia's mines were located on lands owned by *zamindars*, whose customary exactions (known as *salami*) from new tenants became a rich source of rentier income and a root cause of the sub-division of coal-bearing lands into strangely shaped leases which tied up coal under numerous boundaries. Their policy of making fresh demands for the secondary procedure known as depillaring fostered reckless extractions as well as the opening of multiple shafts to save on underground roads. Despite official recommendations that *salami* be abolished, the G.O.I. remained apathetic. Some *zamindars* took a fee for every miner recruited from their estates. Landed property thus put its distinctive stamp on the industry. As a social interest it exacted a levy upon output and the outlay on wages and recruitment. As an institution it entered the operational structure of capital by (in certain cases) acquiring service tenancies and leasing land to miners who were liable to work for them alone.²⁶

Certain decisions taken by the G.O.I. in the 1930's had a lasting impact on the structural context of mining. Following repeated disasters in the mid-thirties, the Burrows Committee had recommended compulsory sand-stowing for certain mines.

²⁵ *Bihar State Archives*, File 108/34. Bihar Government Member for Industries & Labour., J.T. Whitty's note dtd 24/5/34.

²⁶ "The aim of owners of coal mines in Bengal, when dealing with the subject of labor supply, is to obtain the kind of proprietorship of villages which gives them in some measure command of the village labor". M Fryar "Paper on Defects in the System of Work in Bengal Collieries" (unpub), April 1869. I.O.L. no. V/27/611/1.

This was incorporated in the Coal Mines Safety (Stowing) Act of 1939. The procedure was to be financed through a universal cess on all coke and coal despatches by rail. The decision to make "everyone pay for the misfortune of some" was objected to by the two Indians on the Committee.²⁷ An analyst remarked,

The establishment of this principle of subsidising one group of producers at the expense of all consumers from out of a fund created through a universal cess on all coal produced... when there was no control over selling prices was to act as the most powerful distorting force...²⁸

During the 1960's, the managing agencies took advantage of their monopoly over high-grade metallurgical coking and superior non-coking coal to lobby for the extension of this principle to other factors such as the occurrence of gas, depth and inclination. Many of these demands were incorporated by the Bhoothalingam Committee in its cost-plus principle of price-fixation. Since the only advantage state-owned collieries possessed were in terms of geological phenomena, the subsidisation of their competitors' costs operated against them, especially as their own specific requirements of coal-washing to upgrade their grades of coal were overlooked. Thus, the Agencies retained an advantage right until the time of nationalisation.²⁹

The Organization of Work and the Control of Labour

In 1918 an Indian manager suggested the recruitment of convicts for work in the mines. This step "would fetch a very good income for the Government, (whilst)... improving their morality and... decreasing crime."³⁰ The proposal had a respectable precedent. In June 1917, the G.O.I. had seriously considered employing Arab and Turkish prisoners of war in the collieries.³¹ The idea that Indian coal mines were suitable places for

²⁷ CMC, pp. 198; 203-220.

²⁸ K.V. Subrahmanyam, "Shades of Darkness: Annals of the Coal Industry"; *Economic and Political Weekly*, vol 3 (40), October 5, 1968, p. 1519.

²⁹ For an examination of the structure of the coal industry up to the point of nationalisation and the reasons behind the measure, see Rajiv Kumar, "Nationalisation by Default: The Case of Coal in India", *Economic & Political Weekly*, April 1981, vol 16 (17) and (18).

³⁰ Evidence of D.N. Das, General Manager of Bannerjee & Co., in *Rees*, 78.

³¹ Letter dtd 30/6/17 from the Dept of C & I to the Chief Inspector of Mines; and Minutes of meeting

putting prisoners of one type or another to work was a telling indictment of prevailing labour conditions. About 125,000 persons worked the mines of Jharia during the 1920's and 1930's.³² They were mainly 'low' caste, female and tribal. Supervisory jobs were held by upper-caste males. In the 1920's, nearly three-fourths of the workforce was from Manbhum and districts contiguous to it, and almost half (47.5%) from Manbhum alone.³³ Thousands walked in from Hazaribagh and the non-contiguous districts of Gaya and Monghyr.³⁴

Employment patterns reveal a preponderance of Adivasi (tribal) women from nearby areas in the female component of the workforce and a relationship between grades, skills, and caste/regional/gender identity. For many years collieries depended upon piece-rated family labour, with women and children performing ancillary tasks. Until 1935, the prevalent legislation permitted twelve-hour shifts and instances were common of gangs working for 24 hours. With many miners making frequent trips home, an unstable workforce remained the norm. In 1931, the R.C.L. noted that the rural connection provided social security. A prominent manager described the "link with the village" as a sanctorum for the sick. He added that "if we (had) a full supply of labour settled in the collieries, there would always be an overproduction... it would be a heavy burden on the industry at a time like the present one, if the labour did not have homes in the villages...".³⁵ This 'instability', seen in conjunction with the irregularity in the working day, manifested a regulatory practice. Indian coal was mined without an adherence to the calendar or to clock time. Its rhythm was in tandem with the agrarian seasons. On a weekly basis, the length of the working day was determined by workers' preferences.

The work of extraction was dominated by raising-contractors, who earned

held in Calcutta, 24/7/17. I have not been able to find evidence that the proposal was actually implemented. NAI, Progs C & I (Coal Branch), 1917, File: October 20-Filed.

³² COI, 1921, vol 7, part 1, chapter 12; BLEC, vol 1, p. 17, & vol 4, part-C, p. 199. Managements may have deflated the figures out of a desire to renege on housing responsibilities.

³³ RCL, vol 4, part 1, p. 3, 4. Contiguity implied Bengal as well, although in this case it refers mainly to Hazaribagh and Santhal Parganas.

³⁴ BLEC, vol 3-C, p. 204.

³⁵ TMGI, vol 27(2), 1933, pp. 96, 107.

commissions on cutting and loading. They were often landed gentry, and would use their privileges and connections to obtain contracts and recruit labour. Often the latter job would be sub-leased to labour-contractors and village *pradhans*. Gang-sardars led groups of miners around the coalfields, supervising work and wage-receipts for a cut. The combination of clerical graft with piece-rated work and endemic tub shortages bred atomisation and the intensification of labour. Contractors' labour contributed about half of output till the 1930's, and company-supervised miners the rest. In either case the work-rhythms were the same, although the potential for extortion was diminished in the latter.³⁶

In a significant piece of research Jan Breman has analysed the highly mediate patterns by which 'coolies' and informal workers are recruited and managed in South Gujarat. A stratum of petty capitalists runs a system of sub-contracted supervision and control subsidised by their workers through illegal deductions in their wages. Leasing out control and recruitment to jobbers on the one side, these capitalists are themselves tied to traders and larger capitalists on the other. This set of relationships "constitutes the essence of mercantile capitalism, which while severely restricting the bargaining power of labour, provides capital with maximal freedom for manoeuvre".³⁷ The organisation of work in mining reveals the incidence of what could be named a sub-infeudated system of labour management, similar to the phenomena Breman describes. The existence of such patterns in areas as dispersed in time and region as Jharia in the 1930's and South Gujarat in the 1980's and 90's, gives rise to many reflections about the nature of Indian capitalism.

A noticeable feature of life in the mining districts was drunkenness, a cause of alarm to social reformers, but something which had its uses. In 1917, at a meeting of the official coal-controlling authority, "the suggestion to raise the price of grog was revived, and a proposal that liquor should only be sold on Sundays, was put forward, as helps

³⁶ For more details about work-organization in the coalfields, see my article, "Coal and Colonialism: Production Relations in an Indian Coalfield ca 1895-1947", in Shahid Amin & Marcel van der Linden (eds), *"Peripheral" Labour? Studies in the History of Partial Proletarianization; International Review of Social History* Supplement 4, C.U.P., 1997.

³⁷ Jan Breman *Footloose Labour: Working in India's Informal Economy*, Cambridge University Press, Cambridge, 1996, 278 pages. p. 159

(sic) towards keeping the labour fully employed...".³⁸ The suggestion was rejected, but Government was cognisant of the benefits of the miners' need for inebriation. Consumption of large amounts of alcohol dented budgets and obliged miners to put in a greater number of hours in the mines. Alcoholism could turn counter-productive when it affected extraction - this was why prohibition was considered for a short while. Bureaucrats were not unaware of the reason why miners were notorious drunkards. Given their "drab and mechanical existence" remarked an official report, "the only relaxation (they) can look forward to and which... can make them forget the coal mine is the grog shop".³⁹ Whereas in South Africa it was the mine owners who made initial investments in liquor manufacture, in Jharia it was the administration which legalised out stills in 1932 to encourage localised production.⁴⁰ This cheapened liquor by up to 75%, and increased revenues through the licensing process. From 1929 to 1933 outlets in the Dhanbad area went up from 20 to 121, effecting a twelve-fold increase in consumption.⁴¹ Men and women drank heavily after being paid at weekends and were absent on Mondays, and sometimes on Tuesdays as well. The proportion of budgets spent on drink increased from 13% to 20% between 1929 and 1934, affecting entire families. The trend was linked to child prostitution, absenteeism, malnutrition, high rates of minor accidents and declining productivity. In 1940 there was little evidence that prohibition (which lasted only one year) had curbed drunkenness or illicit distillation.⁴²

The Origins and Trend of Regulation

Four features of mining as an industrial activity marked its strategic importance. First,

³⁸ Minutes of meeting held in Calcutta, 24/7/17. NAI, Progs C & I (Coal Branch), 1917, File: October 20- Filed.

³⁹ Deshpande, p. 86.

⁴⁰ See 'Randlords and Rotgut' by Charles van Onselen, in *Studies in the Social and Economic History of the Witwatersrand 1886-1914*, vol. 1, Ravan Press, Johannesburg, 1982.

⁴¹ There had been a 56% decline in excise revenue between 1923 and 1932. With the new system, revenues increased and liquor consumption rose from 30,924 gallons in 1931 to 3.76 lakh gallons in 1933 : Seth, *Labour...*, pp. 243-245.

⁴² Seth, *Labour...*, pp. 244, 248, 251.

safety and conservation regulations were long in coming. Second, recommendations made by government appointed experts were ignored for decades, save the ones relating to commercial viability. Third, the Railway Board assumed a monopsonistic role in the determination of the selling price of coal and by implication, of the cost of labour power. Finally, from the beginning of our period until the late 1970's the state remained highly motivated about ensuring an adequate labour supply - labour shortages and labour unrest were sure to be met with a sense of urgency and government interventions.

In 1900, the Viceroy, Lord Curzon visited Jharia. He later remarked upon the "utter disregard for human life", unspeakable conditions of work and the total lack of regulation. "Upto that time", wrote his biographer, "Indian mines had never been properly inspected, and accidents were not reported. The Government... had woven a wonderful web in which to enmesh mining prospectors; they had done nothing for the protection of people who worked in mines already existing."⁴³ As an indication of the circumstances to which Curzon had reacted, we may cite an engineer named Fryar who reported on haulage systems in 1869:

The Native miner dislikes the bucket and chain as a means of ascent and descent, nor can this be wondered at, as scarcely is anything more calculated to inspire one with a feeling of danger than to be swung in a deep open pit... by means of a slender chain and small attached bucket... Although I have been accustomed to descend Mines of various descriptions during the last twenty years... I have seldom before experienced the same unpleasant feeling.⁴⁴

Fryar's proposals were shot down by the Superintendent of the G.S.I., Thomas Oldham: "it is no part of the duty of Government to take any measures for the introduction of those practical improvements... They may safely be left to private enterprise...".⁴⁵ The

⁴³ In his presidential address for 1914, Frank Agabeg spoke of the prehistory of the Mines Act. "Lord Curzon, who was Viceroy at the time, also interested himself and visited the Jharia Field - went below and obtained valuable information by personal observation and questioning the men on the spot". *TMGI* vol. 9, 1915; pt 1, p. 28. I have not been able to obtain a specific date for Curzon's visit. For the Viceroy's comments, see Lovat Fraser, *India Under Curzon & After*, London, William Heinemann, 1911, pp 328-329.

⁴⁴ Fryar, op cit., *Paper on Defects...*, p. 3

⁴⁵ Fryar op cit., *Paper on Defects...*, Covering note by T. Oldham, Supdt GSI, to E.C. Bayley, Secretary,

process of formulating the Mines Act was set in motion only after 1890. In 1894 an English Mines Inspector named James Grundy was asked to survey Indian mines, and upon receiving his suggestions regarding standardisation, a Committee was appointed which submitted a report in 1895. The lone Indian mine owner on this committee opposed regulatory legislation. Even before the investigation commenced, the I.M.A. emphatically disapproved of "any attempt to interfere with the labour". It was only after Curzon's advent that a Bill was finally passed in 1901. The Department of Mines with a Chief Inspector's office was created at this time, and the Board of Health and a Water Board in 1914.⁴⁶ A latter-day Chief Inspector R.R. Simpson, found that "the effect of the Mines Act of 1901... on the social life of the miner was practically negligible".⁴⁷ In 1919, the Labour Conference in Washington decided to establish the I.L.O. After these developments the regulatory regime became more noticeable.

The laissez-faire attitude of the G.O.I. did not imply indifference. Under-regulation was itself a mode of regulation - the preferences and habits of potential workers were monitored closely by the bureaucracy. In 1917, when units of the Labour Corps were recruited in Chota Nagpur for service in Mesopotamia and France, the exchanges between the Coal Supplies Committee and the provincial Recruiting Board of the Bihar & Orissa government manifested an official concern to "see that recruitment for military needs does not interfere with the requirements of collieries".⁴⁸ A greater degree of manipulation may be observed in a sub-title of an official file - *Question of purchasing rice in the neighbourhood of the coalfields on behalf of the Supply and Transport Dept. so as to keep up the price of the article and thus induce labour to remain in the coalfields*.⁴⁹ This unsubtle proposal was discussed by government officials concerned with coal shortages, and is a nice example of deranged logic:

GOI, April 1869: p. 1.

⁴⁶ *RCL*, vol 4, part 2, p. 179; and vol 4, part 1, p. 234; Mukerjee, *Indian Working Class*, p. 26; Seth *Labour...*, p. 55.

⁴⁷ R.R. Simpson 'The Social Conditions of Miners in India', pp. 89 - 103; in *TMGI*, vol 27, pt 2, 1933.

⁴⁸ Letter dtd 22/7/17 from E. L. Hammond, Secretary Provincial Recruitment Board, to C. E. Low, Secretary to GOI in the Dept of Commerce and Industry. *NAI*, Progs C & I (Coal Branch), 1917, File: October 20-Filed.

⁴⁹ *NAI*, Progs C & I (Coal Branch), 1917, File: October 20-Filed.

The cause of the shortage is lack of labour. This labour is really agricultural and does not work on the mines for choice. Last year's crop was a bumper and the crop now on the ground promises to be equally good. In consequence, prices of rice are abnormally low... The low class of aboriginal labour in question will not earn more than its immediate needs require. A labourer wants enough to eat and drink, and so long as he can earn enough for that, he is content, and will do no more work to earn anything extra.... Agricultural labour... at present prices yields them a sufficiency, and therefore they will not return. Various remedial measures are being considered; but one of the most effective would be a rise in the price of rice. This might be... brought about by Government purchases on a large scale. If the requirements of the Army Department... could be met by purchases in the neighbourhood of the coalfields... it would probably have the effect of putting up prices to a figure which, while still low from the purchaser's point of view, would be high enough to make a very substantial difference in the supply of labour.

The suggestion was discussed at a meeting of rail and government officials, who felt they had a better appreciation of the miners' mentality:

Most men... thought the "ruse" would be ineffective. The labouring classes think there is great importance in getting their rice cheap, and will willingly go off for a day's march across country to buy cheap rice even at the risk of losing 2 days' pay. I am afraid buying for the S & T Dept. would be too local in effect, and might work out the wrong way up (inverted commas in original).⁵⁰

A major effort at regulation during the interwar years was made by the R.C.L., whose work was conducted against the backdrop of the labour unrest of the late 1920's coupled with the authorities' fear of left-wing nationalist consciousness. Cognisant of the extortion prevailing in the mining districts, the R.C.L. made the following recommendation:

Statutory provision is necessary to ensure that the worker whose wages fall short from causes beyond his control, shall not be penalised. Our recommendation is

⁵⁰ NAI, Progs C & I (Coal Branch), 1917, File: October 20-Filed. Correspondence between GOI, Army Dept. and B & R Railway during August 1917. Both the above citations are from this source.

that every worker on piecework who goes underground shall automatically be credited for purposes of payment with a certain minimum output for every shift of eight hours or more worked... this minimum output would be expressed in tubs...⁵¹

Alarmed by this suggestion, the I.M.A. submitted a memorandum to Government:

The principle of the minimum wage is foreign to the mind of the Indian mines worker... The Indian miner is not a natural worker, he would prefer to idle, and this he most certainly would, if a minimum wage were provided...⁵²

The memorandum also denied the endemic tub shortage, attributing it to the time of year that the R.C.L. visited the coalfields, when the mines were overcrowded. There could be no standard output, because of the variable productivity of miners. Thus, the very circumstances engendered by or seized upon by capital as a means of obtaining coal cheaply, such as an unstable workforce, labour-intensive extraction and sub-infeudated labour organisation, were being cited as reasons to resist improved earnings for miners'. Only one official noted that the suggestion was not for a minimum wage, but for a standard tub credit, and that the owners were free to reduce the piece-rate. The Chief Inspector of Mines, the Railway Board, and the managements of the E.I.R. and B.N.R. were united in their opposition to the "minimum wage" The Department of Industries and Labour rejected the recommendation late in 1933.⁵³

The attempt to regulate the piece-rate with some of the benefits of a time-rate was replicated in 1940 in the B.L.E.C.'s recommendation that piece-rates be subjected to a minimum standard. This too was not implemented. Piece-rates were crucial to mining in India. They were a means of keeping labour several steps removed from the owners and dispensable without trouble. Wages could be depressed and seasonal fluctuations in labour supply dealt with by maintaining reserves of raised coal. Recruitment and supervisory processes hinged on the piece-rate and conducted to the

⁵¹ RCL, Report, p. 122.

⁵² From the 'Memorandum submitted by the Indian Mining Association in connection with the recommendations of the RCL in India', in *NAI*, File M-1265 (14), 1933, Dept of I & L.

⁵³ Comment dtd 20/5/32 by the Chief Inspector of Mines on the 'Memorandum submitted by the Indian Mining Association...', and Order by A.G. Clow, Joint Secretary, dtd 1/11/33, in *NAI*, File M-1265 (14), 1933, Dept of I & L.

cheap production of a strategic energy commodity.

The outbreak of war enhanced the importance of coal. The period 1937-1942 witnessed increasing demand and better prices. In 1939 the Bihar government began intervening to settle conflicts. Employers were cajoled to concede a war allowance, and a contribute towards a Welfare Fund. The long-expressed wish of the miners to see an end to mediated recruitment began to be fulfilled. By 1946, over 60% of the workers of Jharia were being recruited directly.⁵⁴ These changes demonstrated an official concern to stabilise coal supply, which had fallen short by 4 m. tons in 1942-43 owing to inadequate plant replacement, war-time wagon-shortages and the movement of workers into better-paid ordnance jobs. Women were permitted underground again in 1943, and the Coal Control Scheme and the Young Plan launched, under which miners were given an attendance bonus and a grain ration. The Raniganj Coalfields Central Recruiting Organisation and the Directorate of Unskilled Labour Supply began contracting workers and housing them in fenced dormitories. These schemes fulfilled the objects of the Labour Recruitment Control Order of 1944, to regulate recruitment "to ensure that there is ample supply of labour for collieries". The Defence of India Rules (1942) empowered government to enforce adjudication and prohibit strikes. Between 1942 and 1945, it issued seven ordinances pertaining to coal mining. Jharia reached its highest production level of 16.59 m tons in 1945.⁵⁵

The Uses of Ethnography

Coal managers operated with a baggage of anthropological rules of thumb which were a mixture of racial stereotypes and altruistic-sounding judgements. The stereotypes reinforced the structures of employment and suggested that certain Indians were ideally suited to coal cutting. The R.L.E.C. of 1896 contained a section entitled *What*

⁵⁴ *Searchlight*, December 5, 9, 13 and 20, 1939; Radhakamal Mukerjee, *The Indian Working Class* Bombay 1951, p. 26; and *ICC*, pp. 251-253.

⁵⁵ See B. M. Prasad, *Second World War and Indian Industry 1939-45*, Delhi, 1992, pp. 71-74, 257-259; M. Kumaramangalam, *Coal Industry in India: Nationalisation and Tasks Ahead*, New Delhi, 1973, pp. 47, 72-73; Simmons, 'Recruiting and Organising', p 457; *Deshpande*, pp. 55-56; Hans Raj, *Executive Legislation in Colonial India 1939-1947*, Anamika Prakashan, Delhi, 1989, pp. 40, 94-96, 121; and *ICC*, 20-21. For the text of the GOI's Labour Recruitment Control Order of 1944, see *Deshpande*, Appendix VII.

Castes will make the best miners. It named certain poor peasant communities from the North-West Provinces (modern U.P.), with the warning that "*Pasis...* are by nature troublesome and require careful handling." Although 'aboriginal' workers were known for dexterity in hewing coal, they were "only anxious to earn enough to live on", "live(d) emphatically for the day", and were "far too lazy".⁵⁶ A manager in 1894 was in no doubt that "*Bauris* are dirty and have no moral courage", that "*Sonthals* are brave but stupid", and so on.⁵⁷

An article on labour written in 1913 which used terms such as 'semi-savage' and 'low-class Hindu gipsy tribe', remarked that "there are probably no other coalfields in the world where the habits, peculiarities and superstitions of the labour force have more to be studied than in ours" - this was a reference to the value of ethnographic knowledge for "the Manager who wishes to attract and keep his labour", with their "varying idiosyncrasies". Thus, *Lodhs* were "not so stupid as the Bengal working races", *Pasis* were "generally under the surveillance of the Police", *Beldars* were "a dirty race and will live anywhere... their women are great carriers, being accustomed to this work from childhood".⁵⁸ The article explained the *Santhals*" aversion to living in *dhowras* by way of an anecdote. We learn that some miners had interpreted the deaths of two of their mates as the work of devils residing under the floors of their quarters. These were dug up and exorcisms performed on the orders of the manager, whose pragmatism for falling in 'with the superstition of the men' to prevent the migration of the gang was praised by the author.⁵⁹

The text accompanying a housing plan published in 1918 cited the "labourers'

⁵⁶ *RLEC*, pp 13-17. Regarding a suggestion that Chinese labour be imported into the coalfields, the *Report* commented: "...(the Chinese) are very clannish, and given to create disturbances unless kept down with a strong hand... experience of the importation of Chinese labour in other countries has abundantly shown that John Chinaman has no intention of doing hard manual labour a day longer than will suffice him to have acquired the knowledge and the small sum of money necessary for him to start as a skilled workman.. a work-supervisor or shop-keeper." p. 17.

⁵⁷ Communication from Walter Saise, E.I.R. Colliery Manager, Giridih, in *Report of the Inspector of Mines in India for the Year Ending the 30th June 1894*, Calcutta, 1894, pp 51-53.

⁵⁸ E.C. Agabeg, 'Labour in Bengal Coal Mines', *TMGI*, vol 8, 1915, pp. 25-38.

⁵⁹ Agabeg, *ibid*, pp. 37-38. The *dhowrahs* were cramped, unventilated, back-to-back dwellings constructed by coal companies for housing their labour force.

insanitary habits" and rural excursions as the cause of the unsavoury state of housing. The architect's scheme kept "the different castes separate" and in accord with the observation that ""Santhals and Koras (have) an aversion to living in a line of attached huts", his diagram included discrete dwellings without pucca roofs for the *Santhal Dhowrah*, in contrast to the unbroken line of *dhowrahs* for *Bauries, Kahars* and *Gopes*. The plans also showed a well for the *Santhals* and *Koras* as "they will not take drinking water from the stand-pies".⁶⁰ In 1894 a mine manager endorsed the notion of hereditary immobility:

a child of 8 years is fit to work...both little girls and little boys should go into the mine early and become accustomed to carrying coals... it is questionable whether children should be educated, for it would... make them more miserable... they would not afterwards work as coal-cutters, but try to get other work... *those who can read and write will never cut coal; on the other hand, they take a most important attitude, and demand respect from everybody...* (emphasis added).⁶¹

Commenting on proposals to introduce longwall mining, the head of the G.S.I. opined that "for anything of this kind greater skill and greater care is necessary... and unless the stupidity of the Native workmen and their abhorrence of change can be overcome, or unless machinery can be introduced for the purpose of cutting coal, there is little chance of any alteration."⁶² In 1933, mineowners could still insist that "the Indian coal miner is, generally speaking, an aborigine, whose ethical concepts -or want thereof - would not give him an understanding to the need of an honest effort in return for a provided wage".⁶³ The prevalence of these stereotypes may have contributed to the

⁶⁰ "Housing of labour and sanitation at mines in India", with attached plates, J.H. Evans, (Seetulpore Colliery, Disergarh) : *TMGI*, vol 12, 1918, pp 79-89:

⁶¹ Communication from Walter Saise in *Report of the Inspector of Mines in India for the Year ending 30th June 1894*, pp 51-53. Calcutta, 1894.

⁶² Fryar, op. cit., "Paper on Defects...". Covering note by T. Oldham, Supdt G.S.I., to E.C. Bayley, Secretary, G.O.I., April 1869: p. 1.

⁶³ From the *Memorandum submitted by the Indian Mining Association in connection with the recommendations of the RCL in India*, in *NAI*, File M-1265 (14), 1933, Department of I. & L. It has been suggested that mine operators preferred up-country workers to local recruits because they tended to use lengthy sojourns away from home to make savings. They were thus seen as more productive and more suitable exponents of piece-rated work in comparision to the peasants from the immediate hinterland, who tended to be seasonal: Prabhu Mohapatra, "Coolies and Colliers: A Study of the Agrarian Context of Labour Migration from Chota Nagpur, 1880-1920"; *Studies in History*, vol 1(2), 1985. pp. 261-266.

slothfulness which characterised the enactment of protection for mining labour. Factory Acts were passed in 1881 and 1891, but the first Mines Act appeared only in 1901, because "legislative interference would tend to hamper the development of the industry which was yet in its early stage".⁶⁴

Women Miners and Gendered Labour

Women's work in the collieries involved manual labour on jobs such as gin-winding, loading, carrying and screening coal, bailing water, pushing tubs and cleaning boilers. Women coolies were called *rezas* and in their capacity as loaders attached to male hewers, were known as *kamins*, a term signifying the performance of service. Gangs usually broke up into pairs, the hewers or *malkattas* cutting the coal, and the *kamins* walking long distances with baskets on their heads to load it. "The gin-women", we learn from a report written in 1869,

are said to be much more capricious in the matter of attention to their work than the men are. In many cases they are completely masters of the situation; and if they refuse to work, the hewers and other underground operatives cannot descend to their places of work, nor can coal be raised to the surface. The use of steam machinery will, however, obviate this difficulty...⁶⁵

The prognostication linking mechanization with the replacement of females was correct, but took longer than its author might have surmised. Till the 1921 census, a fifth of the hewers and nearly half of the loading and carrying coolies were women.⁶⁶ In the 1850's they earned two-thirds of the wages of male workers and by the mid-1930's, at the height of the overproduction crisis in coal mining, some of them were drawing less than half the male wage.⁶⁷ Gender influenced the determination of jobs and influenced workers' attitudes. The 1896 enquiry reported that men refused to carry and

⁶⁴ Parliamentary Paper on the Employment of Women and Children in Mines, 1893, quoted in D.R. Gadgil, *The Industrial Evolution of India in Recent Times*, OUP, Bombay, 1971. (First edition 1924), p 84-85.

⁶⁵ Fryar, op cit., *Paper on Defects...*, p. 13.

⁶⁶ See Subsidiary Table 12, in *COI*, 1921, vol 7, part 1, chapter 12.

⁶⁷ Seth, *Labour...*, p. 138.

load coal. For up-country miners this created a difficulty, as many of them came to the coalfields singly, and needed the assistance of women and children of other castes to do their loading. We learn that "Sonthalis in particular are so jealous concerning their women that they will not allow them to carry coal for other coal-cutters."⁶⁸ A survey in 1924 revealed that nearly 80% of women in the coalfields worked alongside their husbands or male relatives.⁶⁹ The gendering of work processes by miners was not a phenomenon confined to India - before the Act of 1842 prohibiting women's work in mines in Britain, all the carrying work in Scottish mines was done by women and girls, "as miners regarded the jobs too degrading for men".⁷⁰

Women formed 37.5% of the workforce in 1920. This fell to 25.4% in 1929, the year that the government ordered the gradual exclusion of females from underground work. It declined to 13.8% in 1935 and 11.5% in 1938. This trend was linked to the mechanisation of loading, hauling and screening and the eclipse of Adivasi family labour - *rezas* were predominantly tribal. A contributory factor was the slump in coal prices in the mid-thirties, and the closures of several small and under-mechanised enterprises.⁷¹ Why did the G.O.I. take ban the employment of women underground 90 years after their British counterparts? Describing the confabulations preceding the passage of the Mines Act of 1923, the author of an official treatise on industrial policy noted that the "exclusion of women from mines" was "the most important question which came before them". Although Government had possessed the power to prohibit the employment of women underground, "*the extent to which coal mining in particular depended on women's labour* had stood in the way of action, and the development of the industry which had steadily added to the female labour force had steadily increased the difficulties along the way" (emphasis added). The Committee

⁶⁸ RLEC, p. 16

⁶⁹ Seth, *Labour...*, p. 153.

⁷⁰ Roy Church, *The History of the British Coal Industry, volume 3, 1830-1913, Victorian Pre-eminence*. Clarendon Press, Oxford, 1986, p. 191.

⁷¹ RCL, p. 127; Seth, *Labour...*, pp. 140-1; and Mukerjee, *Indian Working Class*, p. 82. Other statistics on coal for British India put the number of women workers for every ten males at 5.6 in 1915, 6.1 in 1920, 4.8 in 1925, 2.7 in 1930 and 1.6 in 1935, rising to 3.6 in 1944, the year after the ban on female labour underground was lifted temporarily. *Deshpande*, pp. 18-19.

decided that immediate exclusion was impracticable and employers be given time to make the adjustments. The Bill conferred the power on the G.O.I. rather than local governments, and recommended consultation with the latter "with a view to prohibiting such employment... at the end of a specified period...". However, local authorities were recalcitrant. Bengal, Bihar & Orissa and the Central Provinces agreed with the desirability of the measure, but refused to fix a date or supply constructive proposals.⁷²

The exclusion of women from coal mining was a worldwide trend which accelerated under the aegis of the I.L.O. In 1938 only in three countries was there an appreciable number of women in such employment: Japan (10%), British India (14%), and the USSR (22%). It is also true that fluctuations in the size of the mining workforce was a global trend, linked with the post-war slump in demand, the use of petroleum and increasing productivity coupled with mechanisation.⁷³ However, in India the structural reasons for the widespread employment of women in mines overrode demands for its prohibition based on considerations of hygiene, and family values.⁷⁴ The compulsions which made managements hostile to the idea were translated into a conservatism on the part of male workers who would have to hire male loaders. B.R. Seth, an economist attached to the B.L.E.C. stated that the conditions of underground work were in some cases better than those prevailing on the surface or in quarries, that the Mines Board of Health had opposed the exclusion of women from underground work and that the family system assured women of adequate protection. He felt rather, that the measure had actually exacerbated the disruption of family life, prostitution and drunkenness in the coalfields.

The measure was ordered when the mechanisation of ancillary tasks had already resulted in a decline of the family labour system and when the industry was in a crisis. It caused competition among women and men for jobs which till then had been

⁷² A.G. Clow, *The State and Industry - A Narrative of Indian Government Policy in Relation to Industry under the Reformed Constitution*, GOI, Central Publication Branch, Calcutta 1928. pp 153-155.

⁷³ *The World Coal Mining Industry*, vol 2, I.L.O., Geneva 1938, pp. 7, 10, 11.

⁷⁴ Commenting on the ban, the Royal Commission on Labour opined: "The release of so many women of the miners' families from the industry should make possible the raising of the miner's standard of home life, with a consequent increase in their efficiency...": *RCL*, Report p. 128.

unpopular with males, forcing wages down still further. It was also opportune. In the words of one manager, "At present, there is an over-production of coal and if, by withdrawing the women, the output drops by say, 20 per cent, it is bound to react on the market: prices should rise and the trade generally improve".⁷⁵ B. R. Seth had noted that "cheap female labour (was) nothing short of a subsidy to the industry". The fact that he put this forward as an argument against the ban demonstrates his failure to see that women continued to subsidize the costs of energy extraction even after being prohibited from working underground - by virtue of the downward pressure they exerted on wages on the surface. The measure resulted in an increased numerical disparity of the sexes, a larger number of single males seeking commercial sex and a 40% decline in family incomes (this was also related to an all-round decline in real incomes).⁷⁶ In 1943, a labour shortage caused the government to lift the ban, leading to 19,000 women being employed in the pits in 1944. In 1946 the ban was re-imposed, but the Labour Investigation Committee took the opportunity to state that in its opinion, "the beneficial effects anticipated by the Labour Commission (1931) as a result of the ban... did not materialise".⁷⁷

Mechanization, mining techniques and occupational hazards

The main occupations underground were cutting, loading, bailing water, and tramping. The mechanisation of mining was never pursued beyond the installation of winding and hauling machinery and electric lights and pumps. Coal was mostly manually cut. There were 95 cutting machines in operation in 1935, 205 in 1940, (when they extracted 2.88 million tons of coal), and 210 in 1944 (when they cut 2.10 million tons in 75 of the 910 mines in India). Cheap labour reduced the attractiveness of machines.⁷⁸ This factor coupled with the incommensurability of loading and transport

⁷⁵ TMGI vol 27, pt 2 1932. Comments by J. Thomas on R.R. Simpson's paper, 'The Social Conditions of Miners in India', p. 124.

⁷⁶ Seth, *Labour....*, pp. 150-151. The Deshpande Committee reported in 1946 that about 30% of the family incomes of miners was contributed by women: *Deshpande*, p. 20.

⁷⁷ *Deshpande*, pp. 18-19.

⁷⁸ ICC, pp. 159-160

facilities with potential output (most underground loading was done by hand, even where there were cutting machines in operation, and seasonal shortages of wagons persisted) reduced the viability of machines, as did the large number of pillars underground.

Mechanical ventilation was scarce. There was no regulation of atmospheric conditions underground. Where ventilation was totally dependent upon the arrangement of the galleries, temperatures could be excessively warm or cold, the heat and moisture in some cases being 'unbearable'. None of the collieries obeyed the regulation requiring the provision of drinking water and sanitary arrangements underground. Many miners drank water from the seams, and defaecation in abandoned work-places caused the spread of hook-worm infections through bruises in bare feet. First aid kits were sadly lacking.⁷⁹

Only 6% of Jharia's mines were electrified, and movement between workfaces, which could number 50-70 and which could be upto two miles separate from each other, was difficult, with many sectors in complete darkness. There were 28,835 Davy safety lamps in use in Jharia in 1942 (an increase of over 20,000 since 1929), but illumination facilities in general were primitive, dependent upon naked kerosene lamps (*kuppis*).⁸⁰ 90% of the illumination of naked lights was absorbed by the surroundings and about a quarter of all miners suffered from miner's Nystagmus, a disease caused by deficient lighting and resulting in photophobia, eyeball oscillation, delayed sensitivity to light, vertigo, depression and headaches. The activity known as 'holing', i.e. undercutting masses of coal by lying supine and concentrating upwards, strained the elevator muscles of the eyes. In many cases, the change-over from oil to electric lighting aggravated latent cases of the disease, and the electric lights used supplied less than one candle-power.⁸¹ Miners were also highly susceptible to lung diseases. A survey in the 1950's found 18.8% of underground workers suffering from coal workers' pneumonocosis and 6.6% from TB, which was more than three times the national

⁷⁹ A.B. Ghosh, *Coal Industry*, pp. 148, 152-154; B.R. Seth, *Labour*, p. 30; Deshpande, pp. 41-45; and Margaret Read, *Indian Peasant Uprooted*, London, 1931, p. 123. The lack of stretchers could aggravate bone injuries. The problem was made worse by the absence of pit telephones.

⁸⁰ Deshpande 41-44.

⁸¹ Deshpande, Appendix IX.

average.⁸²

Between 1926 and 1935, output in nine major companies rose by 80%, whereas depreciation costs, raising costs and wages fell by 66%, 46%, and 45% respectively.⁸³ A Subsidence Committee working from 1929 to 1935 warned that if sand stowing and strict controls over extraction were not enforced, collapses and spontaneous combustion were inevitable. The 1937 report noticed risks "which would not have been possible with less ignorant labour"⁸⁴ The functional effect of erratic forms of capital was manifest. There was a growth in casualties and four major accidents occurred in mines run by the Railways and Agencies. Meanwhile Indian magnates attributed the "alleged bad methods of mining" to the failure of the G.O.I. to improve the "economic condition" of the industry.⁸⁵ A paper presented by the Chief Inspector of Mines to an official seminar in 1929 argued that if conservation measures were not undertaken forthwith, the future of the Jharia coalfield is gloomy indeed. The loss of fully one-half of the coal will be inevitable. Already much of the surface has been broken by the extraction of pillars... Year by year the areas of workings lost on account of collapses and fires are extending.⁸⁶

The author suggested raising funds by reducing costs, closing poorer mines and through co-operative technical operations. The seminar acknowledged the 'unparalleled wastage' but asked why the G.O.I. did not implement proposals "laid down by their own Committee". Average property sizes in Jharia were considered too small to afford machinery, and given the low selling price of Jharia coal, sand stowing was deemed impossible. One participant stated that the competition mounted by Railways' collieries "enhanced the wastage of coal by lowering the selling price, and so making cheap

⁸² *Work Safety: Interim Report on safety in coal mining, India*; (unpub), Peoples Science Institute, Delhi, September 1988, (pp 17-18). I am indebted to Dunu Roy and Amar Kanwar for making this report and other material available to me.

⁸³ A.B. Ghosh, *Coal Industry*, pp. 63-67; CMC, p. 26; ICC, pp. 20-21, 118. See Table II, below.

⁸⁴ CMC, pp. 27, 35-41.

⁸⁵ Statement by A.L. Ojha of the ICOA, *Searchlight*, 14/10/36.

⁸⁶ R.R. Simpson, 'The Future of the Jharia Coalfield'; and 'Discussion on Mr Simpson's Paper'; : *TMGI* vol XXIV, 1929-30; pp 110-114; 114-146; and 226-257; appended in *NAI*, File 76 (18), 1931, Dept of I & L.

mining indispensable to profit earning".⁸⁷

In 1930, the Indian Mine Managers' Association asked the G.O.I. to enforce sand-stowing, "without which there is every chance of subsidences and fires".⁸⁸ Such proposals had previously been rejected on account of financial hurdles and the problems of imposing standard cesses. In this instance, opposition from the industry was also cited.⁸⁹ An official noted that "the present low selling price of coal is ascribed partly to competition with Railway-owned collieries... producers apparently consider that if the Govt. (sic) wish to conserve their supplies of the best grade coals, it is for the Govt. to pay..., they being concerned with immediate profits". Estimating that freight rebates alone would cost the railways a four-million-rupee annual reduction in earnings, he ruled subsidised conservation "out of the question, especially during present financial stringency". He drew comfort from the fact that high grade reserves in India were calculated as sufficient for over a century.⁹⁰

By the mid-thirties more than a third of Jharia's collieries were on fire, and the decade 1930-40 witnessed 8981 serious and fatal accidents, an increase of 66% over the previous decade. An explosion in Poidih colliery owned by the Bengal Coal Company in the adjacent Asansol field in 1936 killed 210 persons, with "the cage which had been at the bottom of the shaft at the time of the accident (having been) blown up the shaft into the headgear, a distance of over 700 feet...".⁹¹ That these were not simple accidents, was indicated in the currency of the term 'slaughter mining' to describe contemporary business strategies. The deaths of miners were not what was being referred to.

Following independence, there was some improvement in the control of occupational hazards. Official statistics analysed in a study conducted by volunteers of the People's Science Institute in the late-1980's showed a decline in the overall death

⁸⁷ J.E. Phelps' comments on R.R. Simpson's paper, in *ibid*, p 140.

⁸⁸ NAI, File M 76 (19), 1931, Dept of I & L. Letter from J.K. Dholakia, Association President, dtd 19/9/30.

⁸⁹ NAI, File M 76 (19), 1931, Dept of I & L. Notes dtd 23/1/31, and 7/3/31.

⁹⁰ NAI, File M 76 (19), 1931, Dept of I & L. Comments by the Chief Inspector of Mines, dtd 1/4/31, and by (signature illegible), dtd 10/10/31.

⁹¹ *Annual Report of the Chief Inspector of Mines in India* 1936, p. 23

and serious injury rate from 1951 to 1980, when the major killers were failures in rope haulage, ground movements including roof falls, and explosions and inundations (death rate: 0.91 to 0.32; serious injury rate: 5.69 to 4.12). The detailed examination however, showed two interesting trends, one, that fatalities due to roof-falls increased between 1964 and 1972; and secondly, that the *rate of decline* in the overall death rate decreased in the late seventies, and became constant in the eighties, pointing to the emergence of other endangering phenomena.⁹² Prominent among these is the increase in opencast mining, and the dangers associated with heavy earthmoving and transportation machinery, falls of sites, and falls of persons and objects. In addition, opencast mining has increased air pollution because of an increase in the size of the dust particles.

Miners were conscious of the acute dangers of their profession.⁹³ However, in the first phase of unionization, the outstanding issues were the right to unionize, and matters such as emoluments and victimization. Workers were so engrossed with the immediate need to counter management terror that safety issues were left in the lurch.

Nonetheless, there is evidence of the miners' concern for work safety. The study referred to above surveyed an underground mine, Birsingpur Pali, in Shadol district in eastern Madhya Pradesh in 1988 (this is part of the same geological formation which underlies Jharia). This mine is over 100 metres deep, and is in the depillaring stage of extraction which is especially dangerous. Workers were markedly aware of the possibility of roof falls. The introduction of lifting machines underground had rendered vertical roof supports impractical, requiring them to be replaced by U-shaped steel supports on the walls, which are less reliable than central supports. The dangers seem therefore to have increased. Statistics show however, that although miners were certain that falls of roof were as frequent as they had ever been, there was a decline in accidents

⁹² *Work Safety: Interim Report on safety*, pp. 10-16.

⁹³ See the appended interviews in *A study of the Labour Movement in Jharia Coalfield 1900-1977*, unpub. thesis, Calcutta Univ. 1992; by Ranjan Kumar Ghosh; and *Work Safety: Interim Report on safety*. Ghosh has cited a popular miners' song whose theme is the uncertainty governing their lives:

"If a chunk of coal falls
My head will be smashed
God knows what is due
Oh ! This is what I think !..."
From the folk song 'We Sad Coalcutters', by Ghugu Mahto.

attributable to roof falls. The study concludes that the reasons for this must be sought in the workers' attitudes. These include the application of accumulated skills, a more safety-conscious management in the aftermath of nationalisation and improved morale. They were not only aware of specific dangers and the means of dealing with these, but also willing to confront management on safety-related issues. The study recorded instances of workmen refusing to work in dangerous areas underground. This kind of data shows that the experience of everyday work and its associated hazards is subject to influence and change depending on the overall institutional context as well as the level of skill and determination among the miners.

Solidarity and Resistance.

The fact that 'labour' as a living entity was not completely predictable and could react in a manner detrimental to the needs of capital and the state was reflected in official and commercial discussions relating to coal mining. During the war years, there were repeated references to labour being "jumpy", "liable to be frightened away by the display of any new or unusual methods", and "unsettled". A meeting of the Coal Regulation Committee, attended by bureaucrats and representatives of the industry, expressed concern that labour not be "scared in any way", and that recruitment for military work not be undertaken in the vicinity of the coalfields as "this would cause the labour to vanish".⁹⁴ These concerns were well-grounded, for in 1914, miners had put the mines into "a state of dissolution", by departing silently during an outbreak of cholera. The creation of the Jharia Mines Board of Health and the Jharia Water Board demonstrated that even mute protests could affect the structure of the industry.⁹⁵ Low-key methods of resistance included leaving empty spaces at the bottom of the tubs, and cheating on advance food allowances.⁹⁶

The world of the coal miner was one of unremitting exposure to extortion and intimidation, the latter being the means of perpetuating the former. But solidarity was

⁹⁴ Secretary, GOI, Dept. of C & I, to the Chief Inspector of Mines, 13/6/17, and Minutes of meeting held in Calcutta, 24/7/17. NAI, Progs C & I (Coal Branch), 1917, File: October 20-Filed.

⁹⁵ *RCL*, vol 4, part 2, p. 179.

⁹⁶ *BLEC*, vol 3-B, Book 3, pp. 246, 250 & 282.

slow in forming. A reason for this was the fact that in the earliest phase of Jharia's history, the workforce was dominated by persons from the hinterland - the so-called *dehatis*. Their comings and goings were irregular, and their world-view conditioned by their attachment to their villages. Under such circumstances the question of industrial combination must have been quite foreign to them. After the Great War, with the advent of numbers of up-country labourers (the *paschimas*), who were migrants from long distances and stayed on for long periods, incipient class consciousness began to manifest itself.⁹⁷ In 1930, in one of the earliest examples of this development, miners of the E.I.R.'s collieries staged lightning strikes over three weeks demanding an end to the *sirdari* system and differential rates, shutting down six pits employing 3423 persons. They complained about extortion and demanded allotments of free coal, railway tickets, loans and paddy lands.⁹⁸ No union was involved in a movement wherein workers-initiated sympathy strikes and picketting. In 1934 the Railways' mines called for fresh contractors' tenders. These were so low that the Superintendent believed that implementing them would reduce wages 'far below the irreducible minimum'.⁹⁹ The new rates obliged the *sardars* to lessen their tub commissions or squeeze their gangs. In mid-May, miners and *sardars* assaulted an overman and smashed the manager's office. Police opened fire, and two miners were killed.¹⁰⁰

Similar changes caused tension in the Railways' Bokaro colliery whose workers were mainly migrants. The old contractors bid 33% lower rates in January 1934, but outsiders went lower. Convinced that wages were at "bare subsistence level", the district officer remarked that "labour unrest is not a factor by which (the Railway Board) are influenced... the maintenance of a living wage for their labour is a matter which appears

⁹⁷ For more information about miners' movements in the 1920's and 30's, see *A Study of the Labour Movement*, by Ranjan Ghosh, and chapters 4.5; 6 sec. 2; 8.8; 8.11; and 9.11 of my *Politics of Labour*.

⁹⁸ *Bihar State Archives*, File 53/30. Letters dtd 8/2 & 11/2, Reports II and III, dtd 11/2, & 12/2. Also see *RCL*, vol. 4, part 2, pp. 340-366.

⁹⁹ *NM Joshi Papers*, Nehru Memorial Museum & Library, File 71, Letter dtd 11/12/33, P.C. Bose to Railway Board. The Indian Miners Association stated that government's sole concern was to cheapen liquor and increase the number of grog shops.

¹⁰⁰ *NAI*; Fortnightly Report-1, May 1934; and *Bihar State Archives*, File 108/34, R.E. Russell's letter dtd 19/5/34.

to merit some consideration".¹⁰¹ The G.O.I. responded that there was "no reason why the Railways should pay more than ordinary commercial concerns". Over 5000 miners were discharged.¹⁰² These developments show how mediate recruitment coupled with insecurity, could reduce wage-bills. They also demonstrated the potential for conjunctural identities of interest between *sardars*, miners and raising contractors.

In 1937, under a new constitutional system, nationalist ministries emerged across India, and in 1938 a labour offensive began. In Jharia lightning strikes erupted over which political leaderships asserted control. One such was the strike of 2200 workers at the Badruchak colliery of Bird & Co, which began on September 26.¹⁰³ Miners here had complained of racist intimidation by the manager. Their demands, put out a week after the strike began, covered harassment and graft, working and living conditions, and maternity and old age benefits. Indian owners expressed solidarity with the British Agents, and the local administration (represented by an Indian official), was hostile. Congressman Abdul Bari's extreme speeches aroused the mining population as never before. *Rezas* armed with earthen pots and broomsticks appeared at the pickets. Pumping was disrupted, and sabotage attempted. Left-wing slogans and red flags alarmed the administration and moderate Congressmen, but Bird and Co. held out, though they hastily transferred the manager. The miners began to wilt - Newari Bhuni, the mother of a strike-breaker, spoke of starvation forcing her son back into the pits. The strike was finally settled by a moderate unionist on terms which withheld most of the demands.

The strike movement of the late 1930's and early 1940's achieved the recognition of popular unions such as the Congress-led Chota Nagpur Mazdur Sangh. After the War, with mine owners indulging in black-market sales of rationed goods meant for the miners, a new upsurge developed. In 1946 Jharia witnessed 57 strikes involving nearly 66,000 workers with demands going beyond the issue of food supply to union

¹⁰¹ *Bihar State Archives*, File 108/34. R.E. Russell's letter dtd 20/5/34.

¹⁰² *Bihar State Archives*, File 108/34. G.O.I. Home Department's letter dtd 7/6/34; and letter from Chief Mining Engineer, Railway Board, to Chief Commissioner, Railways, dtd 12/7/34.

¹⁰³ This account is reconstructed from records in *Bihar State Archives* File 379/39.

recognition, re-instatement of discharged hands and wage-increases, bonus.¹⁰⁴ The award made by a Board of Conciliation set up in April 1947 made concessions which were nullified by loopholes advantageous to the owners and whose calculations for wage increases were made on the basis of the abysmally low 1939 rates. The strike wave continued, and with pump operators and safety men also on strike, machinery was damaged and mines made subject to flooding. The most prominent leader of the miners during this period was Sadhan Gupta, an activist of the Revolutionary Socialist Party. There is evidence that peasants living in villages near collieries such as Bhowra and Amlabad assisted activists with food and shelter. As *dehatis* and *paschimas* co-operated in the struggle, it became clear that consciousness of class interest had begun to supersede caste and regional distinctions. Senior Congress politicians now appealed for "responsible behaviour", striving to shift the blame on to a fast-retreating colonial government. Police and military were deployed in many collieries, and in the summer of 1947, 22 workers were killed in two incidents of firing.¹⁰⁵ Police repression and arrests of important left-wing leaders defused the movement. This was coupled with the emergence of the Indian National Trade Union Congress (INTUC) in 1948, which rapidly embarked upon the enlistment of petty employees, overmen, sirdars, and even moneylenders as union officials. A new era in the history of mineworkers' struggles was beginning.

In the 1950's and 1960's mineowners, labour contractors, corrupt clerical staff, money-lenders, union leaders and musclemen worked hard to establish themselves in the vacuum created by the retreat of left-wing activists. By the 1960's the coalfields were in the iron grip of the infamous Dhanbad mafia. Managements began flouting regulations regarding bonus, safety and wage-payments. Armed hoodlums of upper-caste origin began terrorising the labour force. The influx of poverty-stricken unemployed persons compounded the situation and weakened the bargaining strength of the workforce. Country liquor shops and moneylenders made vast amounts of money on weekly paydays, with the latter using intimidation at the point of payment to exact interest. Violent clashes over 'territory' began to take place among contending factions

¹⁰⁴ Ranjan Kumar Ghosh, *A Study of the Labour Movement...* p. 176.

¹⁰⁵ Ghosh, *ibid*, chapter sections 3.9, 3.10, 3.12.

of the dominant union, I.N.T.U.C. As union leaders had also taken over part of the function of labour recruitment, unlawful retrenchments of existing employees took place along with the growth of regional feelings and divided loyalties among workers.

Prolonged resistance to *goondaism* under the leadership of left-wing unions now became the lietmotif of solidarity actions.¹⁰⁶ The impetus came from the activities of the Bihar Legislative Assembly Member from Sindhri, A.K. Roy, and the CPI(M) cadres who worked with him among the villagers of the hinterland in rural Dhanbad. After his election victory in 1967, groups of miners, many of whom were *paschimas*, began frequenting his meetings and soliciting his intervention. His leadership of an action committee at Golakdih colliery led to a six-month long strike following which a wave of struggles unfolded, against which managements used their well-worn methods. This resulted in recurring clashes which accentuated class consciousness among *dehatis* and *paschimas* and fostered a unity of interests among villagers and miners. A new union was formed in 1969, called the Bihar Colliery Kamgar Union (B.C.K.U.), which excercised a powerful influence in the region for over a decade. This was also the period during which the movement for tribal autonomy and the separate province of Jharkhand grew in strength. Taking off from a campaign against the alienation of tribal land, and deriving ideological inspiration from a long-standing sense of tribal victimisation at the hands of the new industrial regime in the region, an organization called the Jharkhand Mukti Morcha (J.M.M.) was formed in 1972. The B.C.K.U. and the J.M.M. became natural allies. In 1974 and 1975 there took place several instances of villagers physically rallying to the defence of miners. This was in the aftermath of nationalization, when miners were resisting retrenchment and when contractors, union bosses and officials were busy using the transition to employ numbers of their kith and kin from north Bihar and east U.P. The militant phase ended with the imposition of the national emergency by the Indira Gandhi government in 1975.

With the advent of large-scale opencast mining, the physical and social world of Jharia's miners has changed almost beyond recognition. No longer is the workforce dominated by part-time *dehati* workers from the tribal villages. But in terms of production relationships, much remains the same. Large numbers of "contractors

¹⁰⁶ For a details of these and related developments see Ghosh, *ibid*, chapters 4 and 5.

labour" are still employed, mostly on piece-rates, the mafia remains in place, and a nexus still exists between unions, contractors, liquor dealers, politicians and officials. Managements continue to remain lackadaisical about the safety requirements of intensified extraction - in January 1994, 54 miners were killed in an underground fire, responsibility for which has recently been pinned on the managers.¹⁰⁷ But headlines about Jharia appear with alarming frequency. In September 1995 they announced that 75 miners were feared killed in another mines disaster, and there were reports of failing safety norms.¹⁰⁸ The notorious underground fire beneath Jharia township burns on, now in its sixty-eighth year, with the authorities showing signs of waking up to the presence of an unprecedented demographic crisis.¹⁰⁹ The wheel has turned full circle with the government's recent decision to start leasing out mining operations to private operators.¹¹⁰ It is likely that the new situation will require novel initiatives on the part of the labour movement. But the development of such an initiative forms part of a larger picture of a working-class movement which is still, albeit temporarily, in suspended animation.

Were there any fundamental changes in the structures governing the extraction of coal between the 1920's and the period following nationalisation? The domination of upper castes in the supervisory system remained, as did clerical graft and intimidation as a mode of regulation. Among the workers, tendencies towards alcoholism and indebtedness persisted. Despite the decline of the managing agencies and raising contractors, capital in the Indian coal mining industry continued to follow the line of least resistance developed during colonial times when it came to kinship-related recruitment or extra-economic coercion, for example. However, miners were capable of forging militant organisations to struggle for drastic changes, of comprehending the mechanisms of an oppressive system and utilising the opportunities arising out of both

¹⁰⁷ "Colliery held responsible for 55 miners' death", *The Hindu*, 23/2/97.

¹⁰⁸ *Indian Express* 28/9/95 and 29/9/95; and *The Hindustan Times*, 1/10/95.

¹⁰⁹ See the report, "Fire bowl threatens to wipe them out", in *The Hindu*, 5/5/97.

¹¹⁰ See the reports entitled "Private sector gains entry in coal, lignite mining"; and "Coal sector opened up to Indian companies", in *The Times of India*, and *The Hindu*, respectively, both dated 12/2/97. Implementation of the decision has however, been postponed pending a political consensus on the necessary legislation - see the report, "Private entry in coal mining put off", *The Hindu*, 1/11/97.

Independence and later, nationalisation, to create novel forms of resistance. This ought to be clear from a reading of their movements, especially in periods such as the late 1930's, the years immediately prior to and after Independence, and again in the late 1960's. Although in a gross sense coal continued to be extracted under an iniquitous capitalist regime, the fact that this regime had now to adapt to a political democracy (howsoever faulty), and heightened awareness among its workers over questions such as the right to organise and work hazards, indicated that shifts in the balance of class relations had occurred, or at the very least, had the potential of taking place. The self-activity of the persons constituting a mere "factor of production" had acted by its recalcitrance, to bring about basic changes in the structure of regulation.